

Tool: Animal Excreta Transmission Routes

What is it?

This tool is an adaptation of the Transmission Routes activity and introduces diseases that can be transmitted by animal excreta and the importance of animal excreta management. It educates people about different disease transmission routes and how controls can be used to block the transmission routes.

Why use it?

This tool helps participants to discover and analyze how diseases related to animal excreta can be spread through the environment.

How to use it

1. Print and cut out the cards before starting. Activity cards for different regions are available at: <http://resources.cawst.org>. You can interchange animals from different regions (e.g., pig, cow, goat) to match your local context.
2. Introduce the topic and start with the pictures of the animal feces and the child. Explain that there are many ways in which pathogens can be “transmitted” from the feces to the child. The transmission route does not necessarily have to be to the child’s mouth, it can also affect other parts of the body, like the foot in the case of soil-transmitted helminths.
3. Divide participants into groups of 3-5 people. Hand out the white cards and arrows to each group. Explain that they should use the white cards and arrows to create as many transmission routes as they can to show how pathogens can find their way from the animal feces to the child.
4. When the groups have made their diagrams, ask each group to show and explain its diagram to the other groups. Let them respond to questions raised by the other groups.
5. Discuss the similarities and differences between the various diagrams. Encourage discussion to find out why participants placed the pictures in the particular order and ensure everyone understands what a “transmission route” is.
6. Facilitate a discussion to help the group use this new knowledge to examine its own situation. Discuss and identify:
 - The transmission routes in the community
 - The problem areas and behaviours that are putting people at risk of infection.
7. Then ask each group to identify practices that can break the transmission routes; the transmission barriers. Hand out the orange cards to each group. Explain that they should use the orange cards to block the transmission of disease. It is useful to have blank paper and pens so that the group can create its own blocks if the pre-cut cards do not cover all situations.
8. When the groups have made their diagrams, ask each group to show and explain its diagram to the other groups. Let them respond to questions raised by the other groups.
9. Discuss the different ways to block transmission of pathogens from animal excreta, and what is similar and different with preventing diseases from human feces. Ask if the groups identified any new ways that were not included in the orange cards.

- *Treat your water to make it safe to drink*
 - *Wash your hands*
 - *Prepare food well (e.g., washing vegetables with safe water)*
 - *Cover food and water to prevent contact from animals and flies*
 - *Fence or tether animals*
 - *Fence gardens to prevent animals from accessing them*
 - *Wear protective footwear to prevent soil transmitted helminth infections*
 - *Remove excreta from the living environment and treat/dispose in a safe location*
10. Summarize by explaining that if we can prevent animal feces from getting into the environment in the first place, then we do not have to worry so much about treating water, storing food correctly or keeping away flies. That is why our first priorities should be safe animal excreta management and handwashing with soap.
11. Ask the participants to identify any local diseases that are related to animal excreta and good management practices to prevent their transmission.

Trainer notes

- Some participants may be surprised at the content of this activity. There may be some disbelief that animal feces can transmit diseases. The best way to deal with this situation is to get the group working together as quickly as possible. Those participants who are more receptive than others will help the disbelievers to become more involved.
- Do not be concerned if the groups do not identify all of the transmission routes. It is enough if they have identified some of the routes.
- Do not prompt or direct the groups when they are trying to create their diagrams.
- If the whole group does not manage to clearly identify the transmission routes, then try to find out why. It may be useful to hold a group discussion to evaluate the activity, which then can be tried a second time.
- Put the diagrams on the wall so it is easy for everyone to see and refer to later on.
- Refer to CAWST's Technical Brief: Animal Excreta Management for more information on specific diseases and transmission routes.

Adapted from Wood S, Sawyer R, Simpson-Hebert M. (1998) PHAST Step-by-step Guide: A Participatory Approach for the Control of Diarrhoeal Disease. Geneva, World Health Organization. www.who.int/water_sanitation_health/hygiene/envsan/phastep/en/index.html